

Notice of Allowability

Application No.

10/671,698

Applicant(s)

KANNA, SHIGEO

Examiner

Thomas M. Dougherty

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/03/05.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 905, 1005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Allowable Subject Matter

Claims 1-12 are allowed.

The following is an examiner's statement of reasons for allowance: Concerning the three independent claims, 1-3, respectively: regarding claim 1, while a prior art reference (57-73513) shows euler angles within the claimed range, and another reference (59-151517) shows a plurality of SAW devices with different propagation directions on a single substrate, the prior art does not show nor fairly suggest a quartz plate cut out with both an Euler angle at $(0^0, 113^0 \text{ to } 135^0, +/- (40^0 \text{ to } 49^0))$; and surface acoustic wave elements M1 to Mn on a main surface of the quartz plate, and provided with at least a pair of IDT electrodes to generate a Rayleigh wave, surface acoustic waves having at least a plurality of different propagation directions of propagation directions ψ_1 to ψ_n being generated from the surface acoustic wave elements M1 to Mn, and the propagation directions ψ_1 to ψ_n satisfying a formula: $\psi_1 \text{ to } \psi_n = 0.3295\theta + 3.3318^0 +/- 1.125^0$, with the Euler angle at $(0^0, \theta, \psi)$; regarding claims 2 and 3, the prior art does not show nor fairly suggest consideration of a device of the cited euler angles and plurality of SAW structures on a wherein the IDT structure has at least a plurality of different ratios η_1 to η_n obtained by dividing electrode width by electrode pitch of the IDT electrodes being given to the surface acoustic wave elements M1 to Mn, and the Euler angle at $(0^0, \theta, \psi)$ satisfying a formula: $\psi = 0.3295\theta + 3.3318^0 +/- 1.125^0$.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Direct inquiry to Examiner Dougherty at (571) 272-2022.

tmd
tmd

Thomas M. Dougherty

December 29, 2005